

# SCANIA AB DIAGNOSTICS

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# OUR COMPANY

Scania AB is a major Swedish manufacturer, founded in 1911 and focusing on commercial vehicles, specifically heavy trucks and buses.





## ABOUT THE PROJECT

Our goal is to minimize maintenance costs while simultaneously maximizing the safety and reliability of our vehicles.

# OUR GOALS



## FASTER REPAIRS

Avoiding inspection of functioning APS minimizes vehicle repair time.

## MINIMIZE COSTS

Faster repair times result in lower operational costs.

## MAXIMIZE RELIABILITY

Better detection of faulty APS maximizes vehicle reliability.

## THE DATA

### POSITIVE SAMPLES

Only 1,375 vehicles of the total sample have faulty APS requiring maintenance

### PROPRIETARY DATA

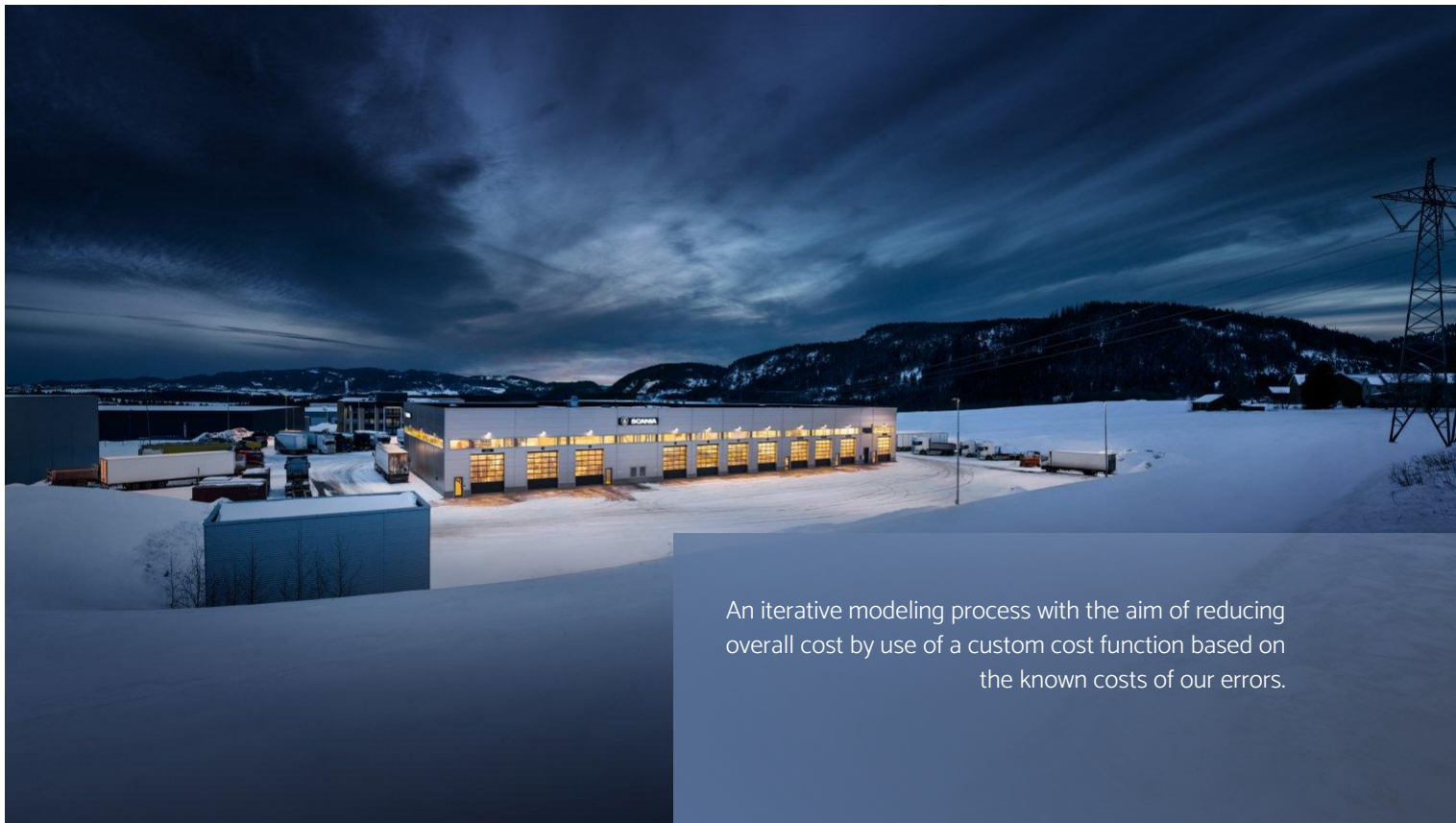
Data drawn from 107 unique sensors, with each being anonymized due to their proprietary nature.

### TOTAL SAMPLES

Our data is drawn from sensor data from 76,000 vehicles undergoing repairs, totaling nearly 13,000,000 data points

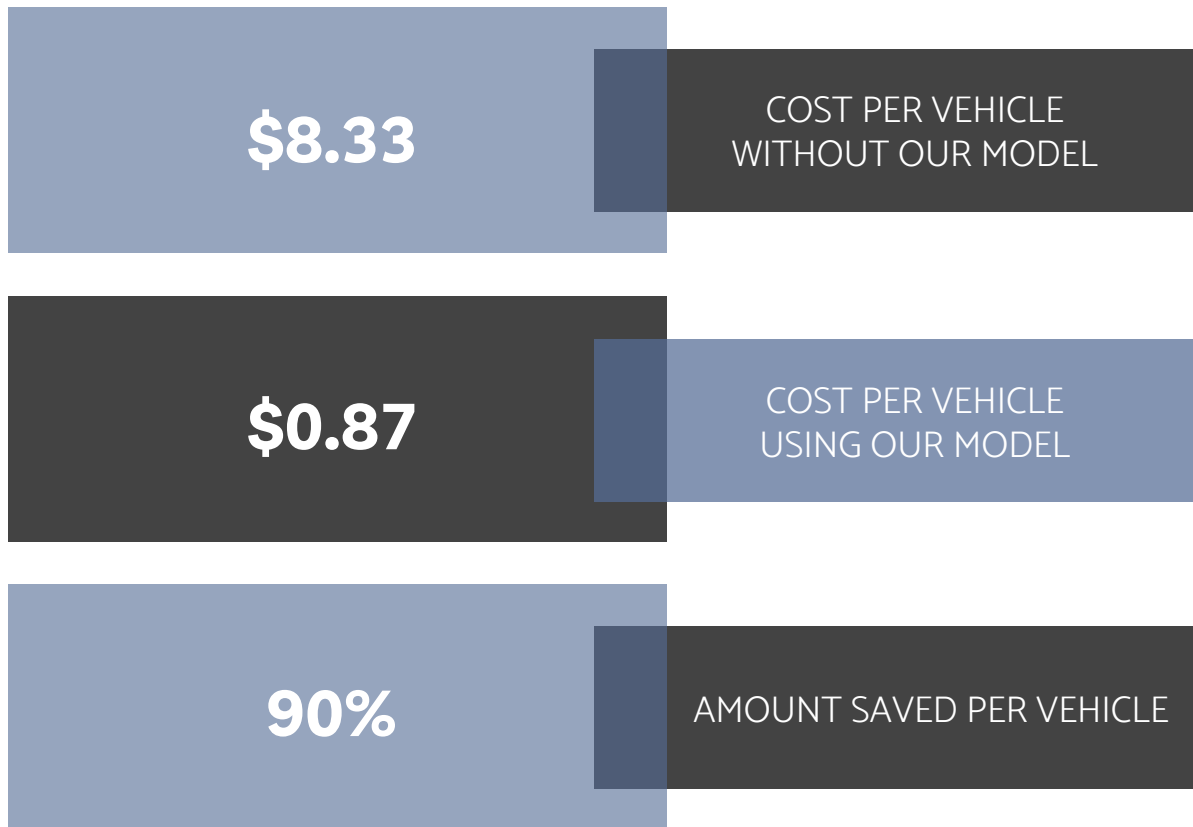


# THE PROCESS



An iterative modeling process with the aim of reducing overall cost by use of a custom cost function based on the known costs of our errors.

## THE RESULTS





## TOTAL SAMPLES

- 16,000 vehicles undergoing maintenance
- \$160,000 cost to check all vehicles
- \$13,950 APS maintenance cost with our model

## WORKING TRUCKS MISDIAGNOSED (\$10 COST)

395

## FAULTY TRUCKS MISDIAGNOSED (\$500 COST)

20

## FAULTY TRUCKS IDENTIFIED

355

# NEXT STEPS



## FURTHER INCREASE RELIABILITY

There remains room for improvement regarding minimizing vehicle down time



## DECREASE MAINTENANCE COSTS

Decreasing vehicle down time will serve to decrease overall maintenance costs

# THANKS

Does anyone have any questions?  
Follow the project updates

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# CREDITS

This is where you give credit to the ones who are part of this project.

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